NetVanta 1224 and 1224ST

Managed Layer 2 Ethernet Switches

Product Features

- 24-port auto-sensing 10/100BaseT managed Layer 2 Ethernet switch

- Available with SFP/1000BaseT Gigabit uplink ports

- Non-blocking, 8.8Gbps switching capacity

- 802.1Q tagged and port-based VLANS

- Support for up to 255 active VLANs

- Stack up to 16 units utilizing built-in Gigabit uplink ports

- 802.1p prioritization with four queues per egress port

- Weighted Round Robin (WRR) and Strict Priority queuing

- 802.1D Spanning Tree and 802.1w Rapid Spanning Tree support

- DHCP address management

- RADIUS authentication

- Port mirroring

- TFTP/FTP firmware upgrades

- Broadcast storm control

- Dual firmware images

- SSH Secure Shell Login

- Familiar Command Line Interface (CLI)

- Web-based GUI

- Five-year warranty

The NetVanta™ 1000 Series of managed Ethernet switches is designed for cost-effective Local Area Network (LAN) switching. This scalable, full-featured product line is suitable for networks requiring access switches for interconnecting LAN devices or network segmentation. It is ideal for applications requiring Fast Ethernet and Gigabit Ethernet switch functionality.

NetVanta 1000 Series switches use the ADTRAN™ Operating System (OS) to provide advanced switching features. Using pre-installed ADTRAN Standard Feature Pack firmware, these switches provide non-blocking Layer 2 switching functionality, support for Virtual LANs (VLANs), advanced management, and remote configuration capability, all at a fraction of the cost of other managed switch products.

The NetVanta 1224 and 1224ST rackmount switches support 24 10/100BaseT Ethernet ports with auto rate, auto duplexing, and auto MDI/MDI-X sensing. The NetVanta 1224ST also supports dual 10/100/1000BaseT Ethernet ports for high-speed uplink or stacking requirements. Fixed-port metallic interfaces support Gigabit over copper, while dual Small Formfactor Pluggable (SFP) slots are available to accommodate optical interfaces using industry-standard SFP modules. Uplink ports may be used independently or redundantly and can be utilized as copper-only or SFP-only. In addition, one metallic and one SFP module may be used simultaneously for mixed mode operation, offering customers flexibility and multiple interface options.

The NetVanta 1000 Series uses industry-standard switching protocols for interoperability and ease of integration into existing or multi-vendor networks. Support for 802.1Q trunking and port-based VLANs, allow network managers to separate broadcast domains for efficient network performance and traffic control. Up to 255 VLANs are supported. Spanning Tree (802.1D) and Rapid Spanning Tree (802.1w) protocols are user-configurable

for faster network convergence, link redundancy, and recovery from topology changes. Other link-based features include Storm Control, Link Aggregation (802.3ad), and Port Mirroring. NetVanta switches also support QoS to ensure network managers have the ability to prioritize mission critical traffic and control network congestion. The NetVanta 1000 Series offers Layer 2 802.1p Class of Service. Each switch supports frame tagging as well as enforcement of tagged traffic received from trusted sources. Four egress queues (per port) are available for assigning traffic priorities using Weighted Round Robin (WRR) or Strict Priority queuing. These switches also offer a variety of data security features including multi-level user passwords, Secure Shell (SSH) for encrypted user login, and Authentication, Authorization and Accounting (AAA) for authentication with a RADIUS server.

The NetVanta 1000 Series is easily configurable with the ADTRAN Operating System's (OS) familiar Command Line Interface (CLI). With the ADTRAN CLI, multiple configuration files and firmware images may be stored, saved, and downloaded for quick, easy configuration of multiple units, file backup, or emergency recovery of existing configurations. A web-based GUI comes standard with NetVanta 1000 Series switches and may be used for switch management and configuration. The ADTRAN OS also supports FTP and TFTP for firmware upgrades and maintenance updates. Maintenance and feature updates are offered at no charge for these products, within each Feature Pack.

NetVanta 1000 Series Ethernet switches are easily coupled with other ADTRAN internetworking products including NetVanta 3000 Series access routers and NetVanta 2000 Series Firewall/Virtual Private Networking (VPN) appliances. All these solutions are backed by ADTRAN's industry-leading support, services, and warranty.

ADTRAN®

NetVanta 1224 and 1224ST

Managed Layer 2 Ethernet Switches

Web-based GUI

Product Specifications

Physical Interface
24 Fast Ethernet Ports
- 10/100BaseT
- RJ-45
- Auto rate/duplex/MDI/MDI-X

Dual Gigabit Ethernet Ports (1224ST Only)
- Built in 10/100/1000BaseT for copper connectivity
- SFP slots for optical connectivity

Console Port
- DB-9, RS-232

Performance
- Non-blocking
- 8,000 MAC addresses
- 16 MB memory shared by all ports

Maximum Forwarding Bandwidth
- 4.8 Gbps (1224)
- 8.8 Gbps (1224ST)

Diagnostics
Front Panel Status LEDs
- Power
- **LAN:** link, activity

Port Statistics
- Number of TX/RX bytes, frames, collisions
- Number of under/oversized frames, CRC errors, jabbers
- Frame size analysis

Port Mirroring

Spanning Tree Support
- 802.1D Spanning Tree
- 802.1w Rapid Spanning Tree

Flow Control
- Backpressure jamming for half-duplex links
- 802.3x flow control on full-duplex links

Stacking (1224ST only)
- Up to 16 switches/stack
- Utilizes built-in 1000BaseT or SFP interfaces

Link Aggregation
- 802.3ad Link Aggregation
- Support for six trunk groups
- Trunk groups consist of up to eight access ports or two uplink ports

Class of Service
- Enforces 802.1p priorities
- Four output queues per egress port
- Weighted Round Robin (WRR) or Strict Priority scheduling

VLAN Support
- Port-based VLANs
- 802.1Q tagged trunked VLANs
- Support for up to 255 active VLANs

Storm Control
- Broadcast, Unicast, and Multicast

Management
Management Methods
- Console
- Telnet CLI
- Web-based GUI
- SSH CLI

Management Security
- Multi-level access control
- Port security
- RADIUS AAA

Management Features
- NTP (Network Time Protocol)
- TFTP/FTP firmware update
- Dual firmware images stored in unit
- DHCP client/server
- Configuration script download

Environment
- **Operating temperature:** 0° to 50 °C (32° to 122 °F)
- **Storage temperature:** -20° to 70 °C (-4° to 158 °F)
- **Relative humidity:** Up to 95%, non-condensing

Physical
- **Chassis:** 1U, 19" rackmountable metal enclosure
- **Dimensions:** 1.7" H, 17.2" W, 7.8" D
- **Weight:** 7 lbs.
- **AC power:** 100–250 VAC, 50/60 Hz
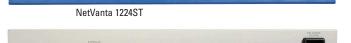- **Power dissipation:** 25 Watts (85 BTU/hour)

Agency Approvals
- FCC Part 15 Class A, UL 1950/CSA, CE Mark, C-tick

Ordering Information

Equipment	Part #
NetVanta 1224	1200500L1
NetVanta 1224ST	1200504L1
NetVanta 1000BaseSX SFP (LC Connectors)	1200480L1
NetVanta 1000BaseLX SFP (LC Connectors)	1200481L1

NetVanta 1224

NetVanta 1224ST

NetVanta 1224/1224ST backplane